Experimental Evaluation of Internet-Based Stress Inoculation for Adult Children of Divorce

by

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ABSTRACT

Descriptions of *gray divorce* often include consequences for young adult children who are increasingly being left to cope with their parents' decision. Adult children of divorce may experience different stressors and reactions than younger children especially during holidays; moreover, their increased social awareness leaves their parental relationship vulnerable to rupture as a result of pressure to choose sides. Interventions for helping young adults cope with their parents' break-up are rarely described, much less evaluated. An online delivery format would be especially well-suited given the possibility of in-home participation at any time of day with privacy assured and negligible cost. We thus developed and experimentally evaluated *Transitions*, a two week internet-based program organized around a classic stress inoculation framework. The goals of *Transitions* are to foster stress-coping skills and to improve parent-child relationships throughout the divorce process. Our study was restricted to young adult college students (N = 95) who had experienced parental separation or divorce within the past year, and who were not receiving psychological services elsewhere. Participants were screened and randomly assigned to experimental and delayed-treatment control conditions; *a priori* analyses indicated sufficient power to detect large effects. During the first week of *Transitions*, participants received psychoeducation, training in progressive muscle relaxation, and a cognitive restructuring curriculum derived from Ellis and Beck. The second week began with a review and then introduced mindfulness meditation and communication skills. Practice sessions were embedded throughout the curriculum and simulations were specific to experiences of parental divorce. Videos of young college

graduates sharing personal stories about their parents' divorce were streamed between each module. Comprehension of the content presented in *Transitions* was monitored and coded for partial or full completion of the program. Outcome measures were keyed to the nature of the clinical problem and interventions deployed. A repeated-measures multivariate analysis of variance (RM-MANOVA) yielded a significant interaction. Univariate follow-up ANOVAs showed significant improvement relative to controls on stress but not on relationship variables. Neither moderator nor intent-to-treat analyses altered this outcome pattern. Future research will focus on refining the stress reduction components of *Transitions* and improving its impact on relationships with parents.

DEDICATION

This project would not have occurred without the help and support of many. I cannot express enough gratitude and appreciation to my committee, Dr. John Horan, Dr. Ashley Randall, and Dr. Judith Homer. I would like to especially thank Dr. Horan for his unwavering support and encouragement from the beginning of my time at ASU and his continuing commitment to my future.

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The divorce rate in the United States has remained stable at 45% (Amato, 2010, Cherlin 2010). Most divorce research has focused on its effects on young couples or children (Heatherington & Kelly, 2002; Wallerstein, Lewis, & Bakeslee, 2000). The divorce literature lacks research on couples who divorce over the age of 50 (Brown & Fen Lin, 2012) and adult children of divorce, i.e. children over the age of 18 at the time of their parents' divorce (Bulduc, Caron, & Logue, 2008; Cain, 1989; Cooney et al., 1986; Greenwood, 2014). Adult children of divorce can experience stress, strained relationships with parents, a sense of loss, anger towards the divorce, and a range of other emotions. (Bulduc, Caron, & Logue, 2008; Cain, 1989; Cooney, Smyer, Hagestad, & Klock, 1986; Greenwood, 2014). "Gray" divorce is a recent concept in the literature focusing on the divorce rate of adults over the age of 50 and the effects on their offspring. In 1990, just one in ten divorcing couples were over the age of 50, but in 2010, that number has shot up to 25% which has affected the number of adult children of divorce seeking counseling services (Brown & Fen Lin, 2012).

Reactions of Adult Children of Divorce

Adult children of divorce respond differently to a parental divorce than younger children (Bulduc, Caron, & Logue, 2007; Cooney et al, 1986) but are not offered comparable resources by the court system or public agencies (Cookston & Fung, 2011; Feng & Fine, 2008; Regev & Ehrenberg, 2012). The available resources for adult children are have not been evaluated or simply do not exist.

A seminal exploratory study by Cooney, Smyer, Hagestad, and Klock (1986) interviewed 39 college students between the ages of 18 and 23 years old whose parents had divorced within the past three years. Cooney and colleagues' focused on identifying the experiences and emotional responses of young adults and reported that the effect of a parental divorce during adulthood is more impactful (Cooney, et al., 1986) than previously indicated (Weiss, 1979). Five common reactions emerged; vulnerability and stress, changes in the parent-child relationship, conflicting loyalties, feelings of anger, and worry about one or both parents' future. Specifically, participants most frequently reported negative changes in relationships with their fathers and stress regarding spending time with each parent (Cooney, et al., 1986).

Subsequent research echoed the Cooney and colleagues' (1986) findings, especially the feelings of stress. Feelings of 'caught in the middle' and pressure to choose sides were commonly reported (Bulduc, Caron, & Logue, 2008; Cain, 1989; Greenwood, 2014). Even if the divorce was anticipated, there was still shock at the loss of their intact family (Bulduc, et. al, 2008; Cain, 1989; Greenwood, 2014). Moreover, adult children of divorce often reported developing negative views of marriage and family and doubting their own relationships (Bulduc, et. al., 2008; Cain, 1989; Greenwood, 2014). Essentially, the literature clearly demonstrates that adult children of divorce react strongly to a parental divorce.

Parental Relationships of Adult Children of Divorce

Adult children of divorce are over 18 years old and thus not assigned to the custody of either parent (Cooney, 1994). As such, they can make their own decisions

regarding their time spent with each parent without the court's involvement. The changing of the parent-child relationship is common in young adults, regardless of the status of their parents' marriage (Cooney, 1994), but divorce puts additional stress on the evolution of those relationships. The age of the adult child has less influence on the relationship than how the parent interacts with the adult child at the time of the divorce. Specifically, putting the adult child in the middle has a negative influence; an example is asking the adult child to serve as a "mediator" between parents (Greenwood, pg. 8, 2012).

Relationships between adult children and their mothers often change after a divorce in a different manner than with their fathers (Cooney, 1994, Greenwood, 2012, Shapiro, 2003). Mother-child relationships are likely to grow stronger, while father-child relationships may become more strained or even nonexistent. There are also gender differences among adult children. Specifically, daughters from recently divorced families report less emotional intimacy with their fathers than daughters from intact families. However, sons report the same amount of intimacy with their fathers from divorced families as sons from intact families. Actual contact was reduced between fathers and both sons and daughters in divorced families compared to intact families (Cooney, 1994). Finally, there is no available research on how the parent-child relationship changes after a parental divorce long term, specifically, how pre divorce factors, such as domestic violence, closeness with one parent, etc., and the cause of the divorce influence the parent child relationship over time.

Current Study

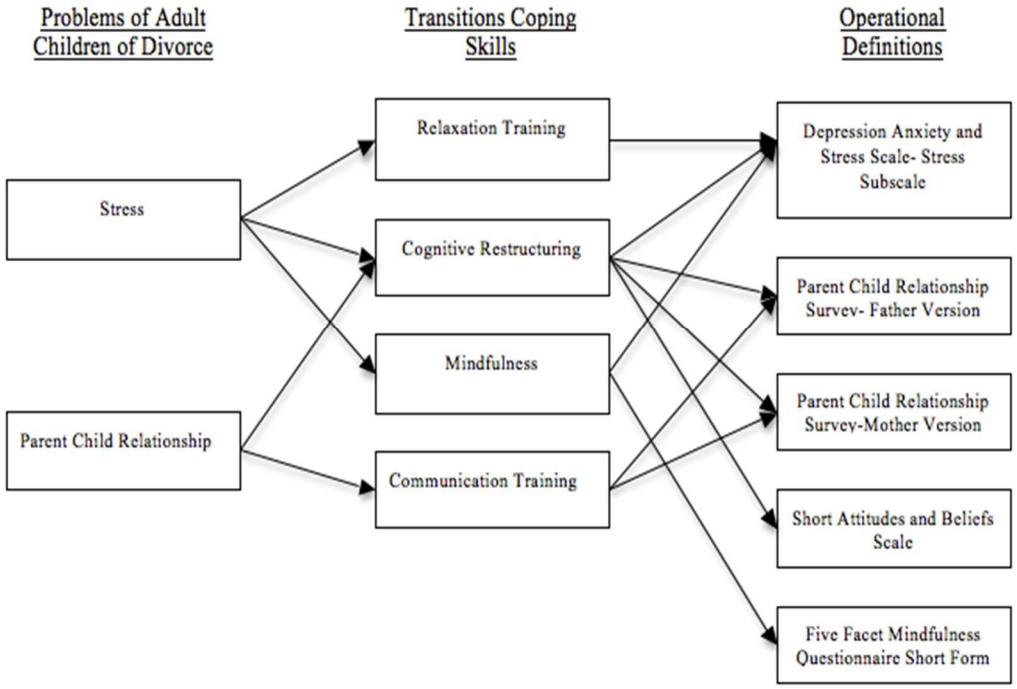
Transitions is an online stress inoculation program aimed at reducing the stress

that young adults are experiencing within the first year of a parental separation or divorce. The aforementioned literature indicates that adult children of divorce report two main problems as a result of the divorce: stress and changes in their relationships with their parents (Bulduc, Caron, & Logue, 2008; Cain, 1989; Cooney et al., 1986; Greenwood, 2014). These problems lend themselves to a stress inoculation framework as coping skills exist for directly reducing stress and improving relationship quality (McCubbin & Patterson, 1983). Currently, the only resource available to adult children is counseling and roughly 14% of adult children actively seek out services (Cooney et al. 1986). There are not any programs that are designed specifically to help adult children of divorce. Figure 1 shows how stress and the parent-child relationship are addressed in the current program and how program outcomes were measured.

Transitions, is based on existing empirically validated stress inoculation programs which have been used for a number of populations including law students (Sheehy & Horan, 2004), acute care nurses (West, Horan, & Games, 1984), and participants coping with chronic pain (Hackett & Horan, 1980). These populations are similar to adult children of divorce because each are involved in a high stress environment. In all of the research by Horan and his colleagues, stress inoculation consists of three components; education, coping skills training, and exposure. The components of *Transitions* address common stress experienced by adult children of divorce and creating better parent-children relationships (Cooney, et al., 1986). The current study hypotheses are that *Transitions* will lower stress in adult children of divorce and that *Transitions* will improve parent-child relationships.

As an online intervention, *Transitions* is capable of reaching adult children across the country and in the privacy, comfort, and convenience of homes. The adult children population is accustomed to using online services and are generally familiar with viewing programs online (Wantland, Portillo, Holzemer, Slaughter, & McGhee, 2004). An online format would eliminate the time, money, and professional services needed to teach individuals how to cope with stress in a face to face setting.

FIGURE 1. A priori logical relationships between problems of adult children of divorce, the coping skills taught in *Transitions*, and the operational definitions of the problems addressed.



Method

Participants

Participants (*N*=95) from a large southwestern university in the United States were recruited through email list serves and classes, with the majority participating for class credit in an introductory psychology 101 class. Participants were all considered adult children of divorce with the average age of participants being 19 (*SD*=3.3). The sample consisted of 47 (49.5%) males, 47 (49.5%) females and 1% not listing their gender. Participants reported their ethnic identity as 62 (65.3%) Caucasians, 7 (7.4%) African American, 15 (15.8%) Mexican or Latino/as, and 11 (11.6%) "other." Participants ranged in year in school from freshmen (34%) to seniors (7.4%). All participants were from families with heterosexual parents.

Participants met 3 screening criteria: 1) if their parents had announced their separation or divorce within the past year, 2) they were currently enrolled in a college or university, and 3) they were not currently seeking psychological services.

Procedure

A randomized control trial was used to evaluate *Transitions*. All participants had agreed to commit 3.5 hours total for assessment and *Transitions*. Participants were required to email the researcher to gain access at which time they were screened then randomly assigned to either condition.

Experimental condition

Transitions was hosted through psychsurveys.org; it used power point slides and videos that guided participants through a stress inoculation framework. *Transitions* consisted of two parts, *Part 1* lasted 75 minutes and occurred during week 1, *Part 2* lasted an hour and occurred in the following week. There were 25 videos total and

included an introduction to the stress inoculation technique, a guided activity to practice the technique, and a reflection. *Part 1* and *2* displayed actual individuals who had experienced a parental separation or divorce while they were in college and asks questions of participants about their personal experience. Posttests assessing program outcomes were administered one week after program completion.

The education phase occurred during *Part 1* and focused on types of stress, triggers and reactions of stress, and stress in the context of a parental divorce. Moreover, participants learned progressive muscle relaxation and the ABCs of Ellis's (1962) rational emotive therapy targeting stress. The coping skills phase continued into *Part 2* which entailed a detailed review of *Part 1*, mindfulness meditation, and communication skills. Skills were linked to the stress of a parental divorce such as communicating with parents about feeling 'caught in the middle', identifying family stress triggers, and changing negative thoughts regarding the loss of the intact family. The coping skills and application phases overlapped as after each skill was taught, participants were given opportunities to practice in the program and were asked to practice the skills in between parts and posttest.

Control Condition

Participants experienced pre and post testing three weeks apart and did not receive any treatment by the researcher during that time. Participants were given the option to participate in *Transitions* after post test completion.

Measures

A demographic questionnaire used once at the onset of the study, asked for the participant's age, ethnicity, living situation, year in school, father's highest level of education, mother's highest level of education, participant relationship status, time since parents' announced separation or divorce, income, sibling information, and reason(s) the separation or divorce occurred as perceptions of who was at fault for the divorce (mother, father, neither, both, self).

Outcome Measures. Outcome measures were collected at pre and post testing.

Stress. Stress was measured using the 7-item stress subscale of the Depression Anxiety Stress Scale (Henry & Crawford, 2005). An example item from the stress subscale is "I found it hard to wind down." The stress subscale was summed to create a total score with higher scores indicating higher levels of stress. The stress subscale demonstrated high internal consistency within the current sample (α=.94).

Relationship with Mother/Father. The relationship with father and relationship with mother was measured using the 24-item Parent-Child Relationship Survey (Fine & Schwebel, 1983). An example item included "How close do you feel with your father?" and "How close do you feel with your mother?" The relationship with mother or father scale was scored by summing the total score with higher scores indicating a more positive parent-child relationship. Both the relationship with father (α=.96) and the relationship with mother (α=.95) scales demonstrated high internal consistency within the current sample.

Rational Thinking. Rational thinking was measured using the 22-item Shortened Attitudes and Beliefs Scale (Lindner, Kirkby, Wertheim, & Birch, 1999). An example

item from this scale is “If important people dislike me, it is because I am an unlikeable, bad person.” The rational thinking scale is comprised of seven subscales including rationality, need for achievement, need for comfort, self downing, other downing, need for approval, and demand for fairness but the rationality subscale was not used as this study was only interested in measuring irrational thinking. The total score was summed from individual items with lower scores indicating greater rationality. The rational thinking scale demonstrated high internal consistency within the current sample (α=.92).

Mindfulness. Mindfulness was measured using the 24-item Five Facet Mindfulness Questionnaire Short Form **(**Bohlmeijer, Peter, Fledderus, Veehof, & Baer, 2011). An example item from this measure is “I rush through activities without being really attentive to them.” The total score was summed from individual items with higher scores indicating higher levels of mindfulness. The mindfulness scale demonstrated high internal consistency within the current sample (α=.86).

Exploratory Moderation Measures. Exploratory moderation measures were collected at pretest only as these measures were not expected to change over the study time frame.

Social Support. Perceived social support was measured by the 12-item multidimensional scale of perceived social support and is comprised of three subscales measuring perceived support from a significant other, family, and friends (Zimet, Dahlem, Zimet, & Farley, 1988). An example item from the social support scale is “My friends really try to help me.” Both subscale and total scores were summed from items with higher scores indicating more perceived social support.

Parental Conflict. Parental conflict was measured using the 62-item Conflict Tactic Scale 2 Parent to Parent (Strauss, Hamby, Boney-McCoy, & Sugarman, 1996) indicating the number of times a parental conflict behavior occurred in the past 12 months. An example item is 'my mother called my father fat or ugly. 'The current study only used the psychological and physical abuse subscales (Strauss, Hamby, Boney-McCoy, & Sugarman, 1996). The parental conflict scale was scored by summing the midpoints of the amount of conflict reported for both scales with higher scores indicating more reported parental conflict.

Results

Preliminary Analysis

Power Analysis

An a priori power analysis was run using a large effect size (F=.4) on G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) Results indicated that N=52 participants would yield sufficient power (i.e. >.8) to detect a large effect at an alpha level of .05. The current study's participants (N=95) who completed both pre and post testing met the power requirements.

Attrition

Of the 108 participants who signed up to be in this study, 95 (88%) completed both pre and post testing. Of the 49 participants originally in the control group, 8 (16%) did not complete post testing and of the 59 participants who were originally in the treatment group, 5 (9%) did not complete post testing. For all other participants (N=95), there was roughly 8% missing data across all pre and post test measures. Analyses were

conducted to determine whether or not data was missing at random (MCAR; χ^2=4206.6, DF=7267, p>.05; Little, 1988) and results indicated that data were missing completely at random. Given the low percentage and random nature of the missing data, a single imputation was done via SPSS to fill in the missing data (Schafer & Graham, 2002).

Pretreatment differences

A multivariate analyses of variance (MANOVA) was conducted on all pretest measures to determine pretreatment differences. The MANOVA indicated that there were no pretest differences (F(1,89)=1.95, p=.094) between the experimental and control condition overall.

Table 1 Means and Standard Deviations of Scores Across Pre and Post Tests in the Experimental and Control Condition

	Experimental Condition		Control Condition	
	Pre test	Post test	Pre test	Post test
Stress				
M	7.43*	4.86*	5.65	7.28
SD	4.78	3.80	4.34	4.92
Relationship with Father				
M	105.56	107.56	113.75	105.80
SD	35.14	34.49	31.39	25.97
Relationship with Mother				
M	112.04	104.16	126.25	119.80
SD	34.02	22.41	28.14	25.19
Rational Thinking				
M	61.90	58.17	55.26	55.26
SD	14.64	14.18	17.19	17.19
Mindfulness				
M	71.62	72.66	70.38	70.39
SD	12.45	10.30	14.84	15.13

Higher scores reflect greater stress, better parent child relationships, and greater mindfulness. Lower scores reflect greater rationality.
*significant at p<.05

Range of scores for stress: 21
Range of scores for relationship with Father: 130
Range of scores for relationship with Mother: 129
Range of scores for rational thinking: 75
Range of scores for mindfulness: 75

Treatment Effects

The means and standard deviations for the treatment and control condition at pre- and post testing are listed in Table 1. A treatment by repeated measures multivariate analyses of variance (MANOVA) was conducted and yielded a significant interaction of treatment by repeated measures ($F(1,87)=2.44$, $p=.04$) and a significant treatment main effect on relationship with mother. Univariate follow ups indicated that the significant treatment by repeated measure interaction occurred for stress ($F(1,87)=10.28$, $p=.002$) but on none of the other outcome measures; relationship with dad ($F(1,87)=.878$, $p=.351$), relationship with mom ($F(1,87)=.027$, $p=.869$), rational thinking ($F(1,87)=.413$, $p=.522$), and mindfulness ($F(1,87)=.073$, $p=.787$). A significant treatment main effect was found for the relationship with mom measure ($F(1,87)=14.36$, $p=.0003$) but is not relevant to the current hypotheses.

Intent to Treat Analysis

The preceding analysis used all subjects regardless of the amount of treatment they completed. Participants were tracked by viewing the time spent in each part of the program as well as comprehension questions at the end of each module. 30 subjects received more than half but less than the complete treatment; and 13 received less than half of the program. Similar MANOVAs and ANOVAs were conducted after excluding

both groups and the latter alone. The outcome pattern remained the same as with the full subject set.

Exploratory Moderation Analyses

There is no end to a list of potential moderators: gender, self esteem, reasons for the divorce, etc. but exploring these would come at the cost of extreme family wise error inflation. Prior research, however, suggests that perceived social support can moderate the effect of stressful life events (Cohen & Wills, 1985; Cobb, 1976; Wilcox, 1981) and that parental conflict, not the act of divorce itself, causes stress for children (Fabricious & Luecken, 2007). Thus exploratory analyses were conducted on perceived social support and reported parental conflict to determine moderation effects. In the moderator analyses, outliers on the exploratory moderation measures were removed. Both centered and uncentered data was used but followed the same pattern of results so only the uncentered data is reported (Aiken & West, 1991).

Social Support

Perceived social support ranged from 1.42 to 7 with higher scores indicating more perceived social support (M=5.28, SD=1.13). A hierarchical multiple regression model was used and indicated that the variables of the pretest scores of stress and perceived social support did not account for a significant amount of the variance in post test stress levels between the experimental group and the control group (R^2=.018, $F(1,93)$=.848, p>.05). Next, the interaction term between the pretest scores of stress and perceived social support was added to the hierarchical multiple regression model, which also did not account for a significant amount of the variance in post test stress levels between the

experimental group and the control group (ΔR^2=.002, ΔF=.162, p>.05, b=.039, t=.402, p>.05) indicating that there was not a moderation effect for perceived social support on stress such that perceived social support did not moderate the effectiveness of *Transitions* on stress.

Reported Parental Conflict

Reported parental conflict ranged from 0 reported occurrences of physical or psychological abuse in the past year to 382 in the past year (M=82.79, SD=96.93). Missing data on the Conflict Tactic Scale 2-Parent to Parent version was scored as 0 (Strauss, Hamby, Boney-McCoy, & Sugarman, 1996). A hierarchal multiple regression was used and indicated that pretest scores of relationship with dad and reported parental conflict did not account for a significant amount of the variance in post test scores between the experimental and the control group (R^2=.019, F(1, 92)=.893, p>.05). Next, the interaction term between the pretest scores of the participant's relationship with dad and reported parental conflict was added to the hierarchical multiple regression model, which also did not account for a significant amount of the variance in post test scores between the experimental group and the control group (ΔR^2=.000, ΔF=.034, p>.05, b=.000, t=.186, p>.05) indicating that there was no moderation effect for reported parental conflict on the relationship with dad.

A hierarchal multiple regression was used and indicated that the participant's relationship with mom and reported parental conflict did not account for a significant amount of the variance in post test scores on the relationship with mom between the experimental group and the control groups (R^2=.012, F(1,92)=.549, p>.05). Next, the

interaction term between the pretest scores of the relationship with mom and reported parental conflict was added to the hierarchical multiple regression model, which also did not account for a significant amount of the variance in post test scores between the experimental group and the control groups (ΔR^2=.001, ΔF=.051, p>.05, b=.000, t=-.125, p>.05) indicating that there was no moderation effect for reported parental conflict on relationship with mom.

Discussion

A randomized clinical trial determined if *Transitions*, an online stress inoculation program for adult children of divorce, reduced stress and improved parent child relationships (for both mom and dad). Treatment by Repeated Measures MANOVAs indicated that *Transitions* was successful in reducing stress. *Transitions* did not significantly affect the relationship with their dad or mom as measured by the Parent-Child Relationship Survey. Exploratory moderation analyses revealed that neither social support nor parental conflict moderated the effectiveness of *Transitions*.

Stress reduction in the experimental group can be attributed to the modules that provided psychoeducation, cognitive restructuring, progressive muscle relaxation, and mindfulness meditation. The cognitive restructuring and mindfulness components did not produce significant differences between the experimental and control group on the specifically targeted measures for rational thinking and mindfulness. This could be due to only an introduction to mindfulness being provided with options for further training that we are unsure if participants took advantage of. Previous research on the effects of the cognitive restructuring, mindfulness, and relaxation modules that were utilized in

Transitions, suggest that all are effective with mindfulness perhaps more effective than relaxation (Hackett & Horan, 1980; Messer, Horan, Turner, Weber, 2015; Garibini, et al, 2008; Messer, Horan, Turner, & Weber, 2015). Perhaps the focus of these modules needs to be strengthened in future tests of *Transitions*. Conversely, a dismantling research strategy might reveal which single stress reduction technique could be as effective as a multi-component program. As stress is one of the most common responses of adult children of divorce especially during holidays and major life events (Bulduc, Caron, & Logue, 2008; Cain, 1989; Greenwood, 2014; Cooney, et al., 1986), it is critical for future research to determine which mechanisms of change for stress in *Transitions* best serve this population.

Parent-child relationships did not show change between the experimental and control groups. This could be due to the 3-week time frame over which the participants were measured as previous literature suggests that lower levels of stress are related to higher levels of relationship satisfaction (Falconier, Nussbeck, Bodenmann, Schneider, & Bradbury, 2015). Also, parent-child relationships prior to divorce could influence the effectiveness of *Transitions* as participants may have had a negative relationship with a parent before the divorce or may have developed their own coping skills over the years from witnessing parental conflict. While data was collected on the adult child's perception of the divorce, it was not analyzed to determine if their perception influenced parent child relationships. This could be a moderator for the effectiveness of *Transitions* on parent-child relationships. Future research should collect information of the adult child's relationship and family experience with a parent to more adequately determine

relationship changes. For example, if an adult child reported negative interactions with a parent for years, it may provide more information to provide an effective intervention to improve the parent-child relationship. Moreover, a program for adult children only targets half of the parent-child relationship and future research should determine if a parent component of *Transitions* would be useful in improving those relationships. Research on children of divorce indicates that parent only programs are just as effective as parent and child programs in long term child outcomes (Wolchik, Sandler, Millsap, Plummer, Greene, Anderson, Dawson-McClure, Hipke, Haine, 2002) but it is unknown if the same is true with adult children of divorce.

Exploratory moderation analysis revealed that neither social support nor parental conflict moderated the effectiveness of *Transitions*. Previous literature suggests that adult children do not feel that they are able to talk with their friends about their parental divorce experience (Cooney, et al., 1986), implying that social support is not as large of a buffer for stress from a later life parental divorce as other life stressors (Cohen & Wills, 1985; Cobb, 1976; Wilcox, 1981). Moreover, parental conflict has been shown to have negative psychological effects on children and have a negative effect on parent child relationships (Fabricious & Luecken, 2007) but lack of a moderation effect could imply that adult children of divorce do not suffer those same outcomes potentially due to lack of residence with their parents or developing coping skills from years of experience. Adult children of divorce are in need of services designed to reduce stress and improve parent-child relationships (Bulduc, Caron, & Logue, 2008; Cain, 1989; Cooney et al., 1986; Greenwood, 2014). This preliminary study provides empirical evidence a program

to reduce stress for adult children of divorce. This study has important implications in that it has empirically demonstrated that there is an effective way for adult children of divorce to reduce their stress during their parents divorce. While not all adult children of divorce may need to utilize resources to cope with stress associated with their parent's divorce, those who do can access a resource online at negligible cost. *Transitions* and other online stress inoculation programs can be further developed as an online support for adult children of divorce.

The unanswered question from this study was what type of person is in need of this program. Almost all of the participants received credit for their participation, which may have led to a sample of participants who were not in need for this type of program. Additionally, some participants did not fully receive the treatment as they simply clicked through the program for completion, not for mastery. Furthermore, we were unable to determine if participants actually practiced the skills they were learning from *Transitions* as we only used self report data to indicate skill practice. Additionally, we do not know the long term outcomes of the program as participants were only tracked over a three week period. The current study is consistent with the prior research in that more information is needed on adult children of divorce.

Overall, this preliminary evaluation of *Transitions* provides empirical evidence for a program for this underserved population. *Transitions* serves as a basis for future interventions and can be further developed as an online support for adult children of divorce. Previous literature supports that adult children of divorce are in need of a service

to help them navigate this challenge in their life and *Transitions* is the start of developing that service.

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APPENDIX A

IRB APPROVAL LETTER

ASU Knowledge Enterprise Development

APPROVAL: EXPEDITED REVIEW

Ashley Randall
CLS - Counseling and Counseling Psychology
480/727-5312
Ashley.K.Randall@asu.edu

Dear Ashley Randall:

On 8/18/2015 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Transitions: An Internet Delivered Stress Inoculation Program for Adult Children of Divorce
Investigator:	Ashley Randall
IRB ID:	STUDY00003052
Category of review:	(7)(b) Social science methods, (7)(a) Behavioral research
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• TransitionsadIRB.pdf, Category: Recruitment Materials; • RecruitmentEmailsIRB.pdf, Category: Recruitment Materials; • TransitionsConsentIRB.pdf, Category: Consent Form; • TransitionsApplicationIRB.docx, Category: IRB Protocol; • TransitionsScalesIRB.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB approved the protocol from 8/18/2015 to 8/17/2016 inclusive. Three weeks before 8/17/2016 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure.

APPENDIX B

INFORMED CONSENT FOR SONA PARTICIPANTS

Title of research study: Transitions: An Internet Delivered Stress Inoculation Program for Adult Children of Divorce

Investigator:

Caroline Shanholtz (PI), and Drs. John Horan and Ashley K. Randall (Faculty PIs).

Why am I being invited to take part in a research study?

We invite you to take part in this research study because your parents have announced their divorce within the past 12 months (1 year), and you are currently enrolled in a college or university.

Why is this research being done?

Today's divorce rate is a staggering 46%, and more and more parents with adult children are getting divorced. Research has shown that adult children of divorce react differently than younger children of divorce. For example, adult children of divorce report that they experience stress during and after a parental separation or divorce, especially surrounding holidays and major events. Adult children of divorce often reported feeling caught in the middle during holidays and felt stress regarding pressure to choose sides. To date, there are a lack of programs for adult children of divorce to help them cope with the stress surrounding their parents' divorce.

How long will the research last?

We expect that individuals will spend three and a half hours over three weeks completing this research. Participants will spend five minutes completing a screening survey to determine if they are eligible to participate. If a participant is eligible, they will be assigned to begin Transitions immediately or be put on a waitlist until Transitions becomes available.

If participants begin Transitions immediately, they will be asked to complete a thirty minute survey and part one of Transitions, which lasts roughly an hour and fifteen minutes. One week after completing part one of Transitions, participants will be asked to complete part two of Transitions, which lasts roughly an hour long. Finally, one week after completing part two of Transitions participants will be asked to complete another thirty minute survey.

If Transitions is not immediately available to participants, participants will complete a thirty minute survey. Three weeks after completeing the survey, participants will be asked to complete another thirty minute survey. After both surveys are completed, participants will be directed to participate in Transitions.

How many people will be studied?

Approximately 50 people will be asked to participate in this study.

What happens if I say yes, I want to be in this research?

It is up to you to decide whether or not to participate.

All participation in this study will be through email and online. Participation in this study may be done from any location and any time that participants have a computer and internet access.

Participants will begin by completing a five minute survey to see if they qualify for this study. If participants do quality, they will be emailed a login code and a web address to complete a thirty minute survey and the first part of Transitions, a stress inoculation program for adult children of divorce, which is an hour and fifteen minutes long. After participants complete the first part of Transitions, they will receive another login code and web address to complete the second part of Transitions, an hour long, exactly one week after completing the first part. Finally, participants will be emailed a login code and web address to complete a thirty minute survey one week after completing the second part of Transitions.

Some participants will not be able to participate in Transitions immediately. If participants are not able to participate in Transitions immediately, a participant will begin by receiving an email with a login code and web address to complete a thirty minute survey. Three weeks after completing the survey, a participant will receive another login code and web address to complete another thirty minute survey. Once participants complete both surveys, they will be able to start Transitions. Throughout the surveys in the study, participants will be asked questions regarding their parents. Participants may skip any questions that they do not wish to answer.

What happens if I say yes, but I change my mind later?

You can leave the research at any time and it will not be held against you.

Will being in this study help me any way?

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include learning how to lower stress and gain skills to cope with a parental divorce. Participants will learn general techniques to lower their stress in all aspects of their life. Participants will learn how to effectively communicate with their parents without escalating conflict and how to think about their parents' divorce in a healthy way.

If you are participating in this research for class credit, you will receive two credits for completing this research. You do not need to participate in research to complete your course if you do not want to. Another assignment is available through your instructor.

What happens to the information collected for the research?

Data from this research will be stored on a secure server or flash drive at all times and will not be given out to anyone who is not a part of the research team or a member of the IRB. Efforts will be made to keep your information private, however, we cannot promise

complete secrecy. The IRB and other representatives of this organization may inspect and copy your information.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at transitionsresearchasu@gmail.com*, or one of the faculty Primary Investigators at Ashley.k.randall@asu.edu or horan@asu.edu.*

This research has been reviewed and approved by the Social Behavioral IRB ("IRB"). You may talk to them at (480) 965-6788 or research.integrity@asu.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.
  - You cannot reach the research team.
  - You want to talk to someone besides the research team.
  - You have questions about your rights as a research participant.
  - You want to get information or provide input about this research.

This form explains the nature, demands, benefits and any risk of the project. By checking the box below you agree knowingly to assume any risks involved. Remember, your participation is voluntary. You may choose not to participate or to withdraw your consent and discontinue participation at any time without penalty or loss of benefit. In checking the box below, you are not waiving any legal claims, rights, or remedies. A copy of this consent form can be sent to you upon request.

☐ I have read the CONSENT FORM above and agree with all the terms and conditions. I acknowledge that by completing the survey, I am giving permission for the investigator to use my information for research purposes.

APPENDIX C

INFOMRED CONSENT FOR NON SONA PARTICIPANTS

Title of research study: Transitions: An Internet Delivered Stress Inoculation Program for Adult Children of Divorce

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Caroline Shanholtz (PI), and Drs. John Horan and Ashley K. Randall (Faculty PIs).

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Data from this research will be stored on a secure server or flash drive at all times and will not be given out to anyone who is not a part of the research team or a member of the IRB. Efforts will be made to keep your information private, however, we cannot promise complete secrecy. The IRB and other representatives of this organization may inspect and copy your information.

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  - You want to talk to someone besides the research team.
  - You have questions about your rights as a research participant.
  - You want to get information or provide input about this research.

This form explains the nature, demands, benefits and any risk of the project. By checking the box below you agree knowingly to assume any risks involved. Remember, your participation is voluntary. You may choose not to participate or to withdraw your consent and discontinue participation at any time without penalty or loss of benefit. In checking the box below, you are not waiving any legal claims, rights, or remedies. A copy of this consent form can be sent to you upon request.

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